

REMARKS/ARGUMENTS

Claims 33 and 35 are amended to correct a typographical error. No new matter is added.

Claims 1-38, 43-52, and 54-58 are pending in the present application. Reconsideration of the present application in view of the following remarks is respectfully requested.

Claim Objections

Claim 35 is objected to due to a typographical error, which has now been corrected through the above amendments to the claims. Withdrawal of the objection is respectfully requested. A similar error was corrected in claim 33.

Claim Rejections under 35 U.S.C. § 103

Claims 1-38, 43-52, and 54-58 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Soehnen et al. (EP1270657) in view of Wideman et al. (U.S. Patent No. 6,300,449).

Independent claim 1 reads :

1. (Previously presented) A rubber composition based on a diene elastomer, a reinforcing filler, a plasticizing system and a cross-linking system, wherein said plasticizing system comprises (phr = parts by weight per hundred parts of elastomer):

between 5 and 35 phr of an MES or TDAE oil; and

between 5 and 35 phr of a **polylimonene resin**.

(Emphasis added.)

According to the Examiner, Soehnen discloses a rubber composition satisfying all elements of claim 1 of the present application other than the use of polylimonene resin. To remedy the deficiencies of Soehnen, the Examiner resorts to Wideman, which discloses a class of polymeric resins resulted from the reaction between dicyclopentadiene and limonene. The Examiner then concludes that it would have been obvious for a person of ordinary skill in the art to add the polymeric resins of Wideman to the composition of Soehnen to improve traction of the rubber

composition of Soehnen, therefore arriving at the present invention. Applicants respectfully traverse.

Firstly, a person of ordinary skill in the art would not combine the teachings of Soehnen and Sideman, as suggested by the Examiner. Soehnen repeatedly emphasizes that the rubber composition disclosed therein is free of aromatic process oils. *See*, e.g., paragraphs 0001 and 0023. On the other hand, Wideman teaches that the polymeric resins disclosed therein are used together with aromatic processing oils. *See*, col. 10, Table I, Samples 1-4, col. 11, Table II, Control Samples 1-2 and Sample 3. Because the teachings of Wideman conflict with those of Soehnen, a person of ordinary skill in the art would not modify Soehnen based on the teachings of Wideman. Alternatively, the modification of Soehnen based on Wideman, as proposed by the Examiner, would lead to a composition comprising aromatic process oils and, therefore, render the invention of Soehnen unsatisfactory. *See* MPEP Section 2143.V. which states: “If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.”

Secondly, and more importantly, the modification of Soehnen based on Wideman, as proposed by the Examiner, would not arrive at the present invention. Specifically, Wideman discloses a polymeric resin resulted from the polymerization reaction of dicylopentadiene and limonene. The resin so made in Wideman is only a copolymer, not a polymonene recited in claim 1 of the present application. *See* Exhibit 1 showing chemical structure of polymonene. The copolymer disclosed in Wideman is significantly different from that of polymonene recited in claim 1 of the present application in terms of chemical and physical properties. Therefore, combining Soehnen and Wideman as proposed by the Examiner would not arrive at the invention of claim 1 of the present application.

Thirdly, the unexpected results of the present invention further demonstrate that the present invention is unpatentable. As disclosed at paragraphs 0004-0006 and 0117-0141 of the present application, the rubber composition in accordance with the present invention has not only solved the “chipping” problem but also surprisingly improved the resistance to abrasion. Neither Soehnen nor Wideman provides any reasonable expectation of success of improving the resistance to abrasion by using a polylimonene resin as recited in claim 1 of the present application.


Therefore, claim 1 is not obvious over Soehnen and Wideman under 35 U.S.C. § 103(a). For at least the same reasons, claims 2-24, 43-48, and 54-58, which all depend from or refer to claim 1, are also not obvious over Soehnen and Wideman under 35 U.S.C. § 103(a). Similarly, claims 25-38 and 49-52 all recite a plasticizing system comprising a MES (or TDAE) oil and a polylimonene resin. Therefore, for at least the same reasons discussed above in connection with claim 1, claims 25-38 and 49-52 are also not obvious over Soehnen and Wideman under 35 U.S.C. § 103(a).

Withdrawal of the rejection of claims 1-38, 43-52, and 54-58 over Soehnen and Wideman under 35 U.S.C. § 103(a) is respectfully requested.

It is believed that the present application has been placed in condition for allowance. Early and favorable consideration is respectfully requested.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,
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